

EXHIBIT 13

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

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) Civil Action No.:
IN RE: FLINT WATER CASES) 5:16-cv-10444-JEL-MKM
) (consolidated)
)
) Hon. Judith E. Levy
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REMOTE VIDEOTAPED DEPOSITION OF
BRENT FINLEY, PH.D.
Thursday, March 21, 2024
Volume 1

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Remote videotaped deposition of BRENT
FINLEY, PH.D. commencing at 10:02 a.m., Thursday,
March 21, 2024, before Juliana F. Zajicek, Registered
Professional Reporter, Certified Shorthand Reporter
and Certified Realtime Reporter.

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1 A. Yes.

2 Q. Okay. So we have Exhibit 2 which is the
3 2019 article, Exhibit 3 the supplementary information
4 for that, Exhibit 4 the 2020 article, and Exhibit 5
5 the supplementary information for that.

6 Do you see that?

7 A. Yes.

8 Q. Have you reviewed anything else concerning
9 the work that Roy and Edwards did for their biosolid
10 research with regard to Flint?

11 A. I don't think so, no.

12 Q. Okay. So, for instance, within these
13 articles they make reference to data for lead in
14 biosolids or other metals in biosolids at the Flint
15 wastewater treatment plant. You -- that -- that's
16 correct, yes?

17 A. Yes.

18 Q. You have not reviewed the underlying data
19 that they make reference to, fair?

20 A. I have not.

21 Q. And similarly, they make reference to
22 measurements of water lead levels at various places in
23 Flint, Michigan over periods of time.

24 You're familiar with that?

1 A. Yes.

2 Q. And you have not reviewed the underlying
3 data for the water lead levels yourself, correct?

4 A. Not the raw data, no.

5 Q. Okay. And, finally, they make reference
6 to blood lead levels for children in Flint in their
7 articles.

8 You're familiar with that, right?

9 A. Yes.

10 Q. And similar to the lead in biosolids, the
11 water lead levels, you have not looked at the
12 underlying data or the blood lead levels yourself,
13 correct?

14 A. That's -- that's correct.

15 Q. You've reviewed -- withdrawn.

16 You've relied on the authors' analysis of
17 the data in those three areas for what you cited and
18 relied upon, correct?

19 A. That's true, yeah, I didn't do an
20 independent analysis. I didn't look at the raw data
21 underlying the analyses, but, again, I'm -- I'm citing
22 to their work because it's -- it's consistent with
23 what I found in the analyses I did in my report.

24 Q. Okay. So, for instance, one of the things

1 that -- let me -- let me -- okay. So let's take those
2 one at a time.

3 Lead in biosolids, you -- aside from what
4 Roy and Edwards state in Exhibits 2 through 5, you
5 have no information about lead levels in the biosolids
6 of the Flint wastewater treatment plant at any time,
7 correct?

8 A. That's true.

9 Q. And aside from what -- we'll get to --
10 to -- withdrawn.

11 In their papers, Exhibits 2 through 5, Roy
12 and Edwards make reference to prior published work
13 that they had done, particularly with Pieper, in which
14 they did testing of water lead levels in Flint
15 starting in August of 2015, correct?

16 A. Correct.

17 Q. Your discussions about the level of lead
18 in the water in Flint is based on what Pieper, as well
19 as Roy and Edwards, published and nothing that you've
20 analyzed yourself, correct?

21 MR. TER MOLEN: Objection; foundation.

22 You can answer.

23 BY THE WITNESS:

24 A. It's -- yeah, I used the water lead level

1 data from Pieper -- Pieper.

2 BY MR. MAIMON:

3 Q. And -- okay. I think Roy and Edwards were
4 both -- I mean, we'll see Pieper in a minute, but
5 Edwards certainly was a coauthor with Pieper, right?

6 A. I think -- I think that's right.

7 Q. Okay. We'll -- we'll see it in a bit.

8 And as far as the blood lead levels, that
9 was information that was discussed in Exhibits 2
10 through 5 but was -- but was also independently
11 published on by both Gomez and Hanna-Attisha, correct?

12 A. Correct.

13 Q. And aside from those authors, you've not
14 done any analysis of blood lead levels among Flint
15 children, correct?

16 A. Correct.

17 MR. TER MOLEN: Objection to form.

18 You can answer.

19 BY THE WITNESS:

20 A. Yeah, I haven't done any independent
21 analysis, that's true.

22 BY MR. MAIMON:

23 Q. Okay. Can you tell me how the biosolids
24 research by Roy and Edwards, and particularly as

1 articulated or -- or described and discussed in
2 Exhibits 2 through 5, how do those play into the
3 opinions that you've reached in this case?

4 A. Well, I mean, that's the distinction I've
5 been trying to make. It's -- they -- again, I don't
6 use the estimated data, water lead level data from Roy
7 and Edwards, the biosolids study. I don't use that to
8 reach my opinions about the plaintiffs in this case.

9 But obviously I do talk about the papers,
10 and the reason I do so is because, as far as I know,
11 that's the only study, the first one anyway, that
12 looked at water lead levels before, during, and after
13 the switchover.

14 And so it's relevant to the overall
15 opinion as to what happened in 2015, which is what I'm
16 focused on here. But I didn't -- I didn't rely on
17 the -- you know, the estimated data that came out of
18 Roy from the biosolids study.

19 Q. Okay. We'll get to those. You --
20 you've -- within your report, you -- you put your
21 opinion about what the water lead levels would likely
22 have been for different plaintiffs at different times,
23 correct?

24 A. Right. That comes out of the Pieper

1 study.

2 Q. Right. And what I -- I appreciate that.

3 That is not the predicted biosolids --
4 water lead levels as articulated by Roy and Edwards,
5 but you -- you base -- you base that upon the actual
6 lead levels in the water as published by Pieper,
7 correct?

8 MR. TER MOLEN: Object to form.

9 You can answer.

10 BY THE WITNESS:

11 A. Yes.

12 BY MR. MAIMON:

13 Q. Okay. Thanks -- thanks for clarifying
14 that. Okay.

15 (WHEREUPON, a certain document was
16 marked Brent Finley Deposition
17 Exhibit No. 6, for identification, as
18 of 03/21/2024.)

19 BY MR. MAIMON:

20 Q. I'd like to take a step back in time for a
21 moment, and Exhibit 6 is the deposition that you gave
22 in the class action case. And I'll just -- on
23 February 25th, 2021.

24 Do you recall being -- giving deposition

1 Q. Okay. You then were asked:

2 "Are you relying upon anything other than
3 the Roy and Edwards paper for that conclusion?"

4 And you say:

5 "No. That's the only analysis I know of
6 that tracks water lead levels before, during, and
7 after the switchover period, so no, I'm not.

8 Is that still the case?

9 A. Yes.

10 Q. Okay. If you turn to Page 111, you were
11 asked:

12 "Do you consider yourself an expert in the
13 relationship between biosolids and water lead levels?"

14 You said:

15 "An expert, no."

16 Do you -- is that still the case?

17 A. Yes.

18 Q. You -- it says:

19 "Describe for me what your understanding
20 of the science associated with using biosolids as a
21 basis for estimating water lead levels is?"

22 And you said:

23 "Well, it's described to some degree in
24 the paper itself, but it's based on the relationship

1 Q. And so what they've done is they looked
2 back -- withdrawn.

3 They've taken the biosolids as a surrogate
4 for -- withdrawn.

5 They've taken the lead in biosolids as a
6 surrogate for lead in water and projected backwards
7 based on actual water lead level data that they had.

8 Is that what you are saying here?

9 MR. TER MOLEN: Objection to form, vague,
10 foundation.

11 You can answer if you understand the
12 question.

13 BY THE WITNESS:

14 A. Well, they took the correlation that they
15 found from the Pieper data, the tap data, versus what
16 was in the biosolids at the plant in -- in late 2015.
17 And then using biosolids data going backwards,
18 back-calculating, you know, did a retrospective
19 assessment to estimate what the tap water levels would
20 have been in previous times based on the correlation
21 they established from 2015.

22 BY MR. MAIMON:

23 Q. And in doing so, that assumes that the
24 lead in the biosolids is a valid surrogate for the

1 lead that would have been in the water at that time,
2 correct?

3 MR. TER MOLEN: Objection to the form.

4 You can answer.

5 BY THE WITNESS:

6 A. I believe that's the underlying
7 assumption, that's right, that they made.

8 BY MR. MAIMON:

9 Q. Okay. And they cite to the data
10 concerning the lead in the biosolids historically in
11 their paper, correct?

12 A. Right. That's right.

13 MR. TER MOLEN: Objection to form.

14 BY MR. MAIMON:

15 Q. If the underlying data is inconstrue --
16 inconsistent with the description in the papers, you
17 might not be able to rely on their conclusions,
18 correct?

19 MR. TER MOLEN: Object to the form, foundation.

20 BY THE WITNESS:

21 A. Yeah, I mean, it would depend.

22 Q. If the conclusions are not supported by
23 the underlying data, then the conclusions are not
24 reliable, fair?

1 A. No.

2 Q. And then you were asked:

3 "Now, getting back to the reliability of
4 using sewage sludge to figure out what the water lead
5 levels are coming out of the faucet, have you
6 performed any independent evaluation of the
7 reliability of the samples taken of Flint's sewage
8 sludge?"

9 And you said:

10 "No, I have not."

11 Do you see that?

12 A. Yes.

13 Q. And the same remains true today, correct?

14 A. It does.

15 (WHEREUPON, a certain document was
16 marked Brent Finley Deposition
17 Exhibit No. 7, for identification, as
18 of 03/21/2024.)

19 BY MR. MAIMON:

20 Q. Okay. Exhibit -- I'm going to try and
21 fast-forward this.

22 Exhibit 7, which was Exhibit 9 at your
23 prior deposition, you were shown various industrial
24 concerns and the distance -- their distance from the

1 Flint city water -- wastewater treatment plant and you
2 were asked about your knowledge, if any, about what
3 they might have contributed to lead in wastewater at
4 any particular time.

5 Does that sound familiar?

6 A. That looks familiar.

7 Q. And at that point in time, we can go to
8 the deposition, but do you recall that you said you
9 really knew nothing about the various contributions
10 that any of these concerns made to lead that ended up
11 in the sewage sludge at the wastewater treatment
12 plant, fair?

13 A. Yes.

14 Q. And that -- is that still the case?

15 A. Yes.

16 Q. And have you done anything in the interim
17 to try and gain any information about what their
18 contributions, if any, to lead in the biosolids might
19 have been?

20 A. No.

21 (WHEREUPON, a certain document was
22 marked Brent Finley Deposition
23 Exhibit No. 8, for identification, as
24 of 03/21/2024.)

1 BY MR. MAIMON:

2 Q. Okay. Exhibit 8 which was Exhibit 10 at
3 your deposition in 2021 was a plea agreement by Robert
4 J. Massey concerning a company called Oil Chem and
5 their dumping of industrial wastewaters into the
6 sanitary sewer system between 2007 and 2015.

7 And you were asked about your knowledge
8 about how that dumping over that period of time might
9 have contributed to lead in the -- in the biosolids,
10 and you said you didn't know. Fair?

11 A. I believe that's correct, yeah --

12 Q. Have you done anything --

13 A. -- I did not know that.

14 Q. Have you done anything in the interim to
15 investigate this matter further?

16 A. No.

17 Q. Okay. Have you done anything since your
18 deposition in 2021 to analyze what contributions to
19 the lead in the biosolids at the Flint water --
20 wastewater treatment plant might have been aside from
21 the tap water or drinking water in Flint itself?

22 MR. TER MOLEN: Object to the form, foundation.

23 You can answer if you understand.

24 BY THE WITNESS:

1 A. I -- I have not done any such independent
2 analysis.

3 (WHEREUPON, a certain document was
4 marked Brent Finley Deposition
5 Exhibit No. 9, for identification, as
6 of 03/21/2024.)

7 BY MR. MAIMON:

8 Q. Okay. Oh, here we go.

9 At your deposition in 2021 you were shown
10 this October 28th, 2017, e-mail from Marc Edwards to
11 Robert Bincsik who had been an official at the City of
12 Flint as well as Mr. Krisztian, also a Michigan
13 government official.

14 Do you see it's marked Finley 11 for that
15 deposition?

16 A. Yes.

17 Q. And in this e-mail, Dr. Edwards says:

18 "This is looking very interesting," and
19 earlier in the e-mail chain is where he was provided
20 with the biosolid data.

21 It says:

22 "Basically lead levels in the sludge did
23 not really ever rise year on year until January 15 and
24 then maybe not significantly until April of '15 to

1 that shows a modest elevation in summer 2015.

2 "My hypothesis was the lead really may not
3 have started coming off at higher levels until summer
4 '15, and then in August '15 when Virginia Tech
5 sampled, and we really did catch the peak, worst case,
6 because the sludge data that month was higher than
7 2013 and 2014 August."

8 You were asked:

9 "Do you see what Dr. Edwards wrote there?"
10 And you say: "I see what he wrote there,
11 yes."

12 Did I read that correctly?

13 A. Yes.

14 Q. You were then asked:

15 "And that is inconsistent with the
16 conclusion that he presents in his paper that the
17 sludge data for lead was higher in 2014 than it was in
18 2015, isn't it?"

19 And you answered, you said:

20 "So in this e-mail he says the sludge
21 data -- well, he's talking about a particular month,
22 so I can't tell, but yeah, he's -- it's inconsistent
23 with the figure he has in his paper, which shows
24 higher sludge levels, or should I say biosolid levels,

1 of lead in 2013 and 2014 versus 2015. So it's
2 inconsistent."

3 Did I read that correctly?

4 A. Yes.

5 Q. Have you done anything since your
6 deposition in 2021 to investigate that inconsistency?

7 MR. TER MOLEN: Objection to form and
8 foundation.

9 You can answer if you understand.

10 BY THE WITNESS:

11 A. Yeah, I've not, no.

12 BY MR. MAIMON:

13 Q. Okay. Fair enough.

14 Now, I'd like to move back to the chart
15 that you put on Page 16 -- well, let's go to the
16 actual chart. That will be easier. This is from
17 Exhibit 4. This is the chart that Roy and Edwards put
18 in their 2020 paper, right?

19 A. Yes.

20 Q. Okay. And what they did is on the top
21 section of the chart, section A, they plotted what
22 they are saying is the actual data of lead in
23 biosolids that they obtained from the City of Flint,
24 right?

1 A. Yeah, I can't answer that.

2 BY MR. MAIMON:

3 Q. Okay.

4 A. I mean, I'm not familiar with how they
5 correlated the biosolids.

6 Q. Okay.

7 A. You know, how they predicted the water
8 lead levels from the biosolids data, so -- I mean,
9 this -- that's as far as I can go, is to say that you
10 would think that the trend would be if one goes up,
11 the other goes up, but --

12 Q. Conversely, if one goes down, the other
13 should go down, right?

14 A. Correct.

15 MR. TER MOLEN: Excuse me.

16 Can you please finish your answer, Doctor?

17 BY MR. MAIMON:

18 Q. I'm sorry. I'm sorry?

19 A. When you say consistently, that's a little
20 vague, so I don't -- I'll just leave it at what I
21 said, that the general trend should be there's -- you
22 know, one goes up, the other goes up; one goes down,
23 the other goes down.

24 How tight that should be, how consistent

1 BY MR. MAIMON:

2 Q. Okay.

3 A. -- earlier times, yeah.

4 Q. And if the actual -- if we had those
5 reliable valid water lead levels for before August
6 of 2015 and found that they were significantly higher
7 or lower than the predicted based on biosolid data,
8 that might impact the reliability of using lead in
9 biosolids as a surrogate, correct?

10 MR. TER MOLEN: Objection to form, foundation,
11 incomplete hypothetical.

12 You can answer if you understand.

13 BY THE WITNESS:

14 A. It might. It might not. It's hard to
15 say.

16 BY MR. MAIMON:

17 Q. Okay. And similarly, even though you --
18 withdrawn.

19 Similarly, if the rate of increase or
20 decrease in the actual reliable water lead levels was
21 significantly different from the rate of increase or
22 decrease shown on Section B of this graph, that might
23 tell you that there were other factors in play
24 contributing to the lead in biosolids, right?

1 MR. TER MOLEN: Same objections, form,
2 foundation, incomplete hypothetical.

3 BY THE WITNESS:

4 A. I don't know. I mean, that's getting
5 outside of my area of expertise.

6 BY MR. MAIMON:

7 Q. Okay. Let's put it this way, aside
8 from -- in addition to getting outside of your area of
9 expertise, you've not done such an analysis, fair?

10 A. That is fair.

11 Q. Okay. If at any time you want to take a
12 break, you'll let me know, right?

13 A. Yeah, in about ten minutes would be good.

14 Q. Okay. I'm going to go back to the
15 beginning of your report which we've marked as
16 Exhibit 1, and I'd like to go through the opinions
17 that you express here. Opinion No. 1 you state:

18 "Like children everywhere, Flint children
19 are exposed to lead in soils, house dust, food, and
20 lead-based paint. Seasonal increases in BLLs (due to
21 soil and house dust exposures) occur every year in
22 Flint children and these increases were occurring
23 years before the switch to the Flint River water."

24 Did I read that correctly?